

ABSTRACT

A chemically inflated gas bag for mining is provided. This gas bag includes a modified PVA bag that contains sodium bicarbonate and an HDPE bag that contains acetic acid. The PVA bag and the HDPE bag are contained within a nylon/PE bag. Preferably, when the HDPE bag is broken, the flow of acetic acid onto the PVA bag is controlled by a second bag having small holes therein surrounding the HDPE bag, allowing the gas bag to be lowered into a borehole before it inflates. Another aspect of the present invention is a method of making this gas bag. This method includes pouring diluted acetic acid into an HDPE bag, putting sodium bicarbonate into a PVA bag, sealing these bags, and placing these bags within a nylon/PE bag. The gas bag is folded in such a manner as to easily inflate and completely seal the borehole.